

In the Claims

For the convenience of the Examiner, all pending claims are set forth below, whether or not an amendment is made. Please amend the claims as follows:

1. (Currently Amended) A method of processing a request for a data communications session in a data network, comprising:

storing in a data base for a plurality of potential users of the network a data set representing the historic usage pattern of each of the plurality of users with respect to the percentage of calls which affect a plurality of numbers of cells;

determining whether there is sufficient bandwidth to accommodate the session in an initial cell associated with the request;

determining a set of cells contiguous or near to the initial cell to which the session may be transferred during the pendency of the session;

determining whether the selected set of cells have sufficient bandwidth to support a decision to admit the session; and

admitting the session to the initial cell if there is sufficient bandwidth in the initial cell and the identified contiguous cells.

2. (Original) The method of Claim 1 wherein the step of determining whether or not there is sufficient bandwidth in the initial cell comprises the step of adding a fraction of the current bandwidth usage of the cell with a fraction of the historic bandwidth usage of the cell.

3. (Original) The method of Claim 1 wherein the step of identifying contiguous cells comprises a step of identifying contiguous cells to which the session may travel by identifying cells previously occupied by the user.

4. (Original) The method of Claim 3 wherein the step of identifying cells previously occupied by the user comprises the step of identifying the percentage of time in which the user resides in a particular cell.

5. (Original) The method of Claim 1 wherein the step of determining a set of cells comprises the step of calculating a percentage likelihood that a user requesting the session will affect each of a predetermined number of cells and comparing such percentages to a random number and selecting the set of cells responsive to the comparison.

6. (Original) The method of Claim 1 wherein the step of determining whether the selected set of cells have sufficient bandwidth comprises the step of calculating a probability that a user requesting the session will enter a given cell and multiplying the probability by the requested bandwidth to yield a probabilistic weighted bandwidth and comparing the probabilistic weighted bandwidth to the actual available bandwidth in the given cell.

7. (Cancelled)

8. (Original) The method of Claim 1 and further comprising:
determining if the user requesting the service has ever resided in the initial cell or the contiguous or near cells; and
if the user has not resided in the initial cell or the contiguous cells, assigning a new user probability profile to the user prior to calculating the available bandwidth.

9. (Original) The method of Claim 1 wherein the step of determining whether the selected set of cells have sufficient bandwidth comprises the step of determining the available bandwidth at a contiguous or near cell by combining a fraction of the actual bandwidth available for that cell with a fraction of the historic bandwidth usage at that cell at a predetermined period of time in the future.

10. (Original) The method of Claim 1 wherein the step of determining a set of cells comprises the step of generating a random probability fraction and adding the transit cell probabilities associated with a particular user until the random probability is exceeded and including all the cells identified within the identified number of transits from the initial cell within the set of cells identified.

11. (Currently Amended) A data communications system comprising:
a plurality of base transceiver stations each station associated with a cell;
a resource manager in communication with each of the base transceiver stations and
operable to to:

store and use a table of data comprising historic usage information for a plurality of
users of the system; and

perform an admission control decision upon request from the base transceiver
stations, the admission control decision comprising the steps of:

determining whether there is sufficient bandwidth to accommodate the session
in the initial cell associated with the request;

determining a set of contiguous set of cells contiguous to the initial cell to
which the session may be transferred during the pendency of the session;

determining whether the contiguous cells have sufficient bandwidth to service
the session; and

admitting the session to the initial cell if there is sufficient bandwidth in the
initial cell and the identified contiguous cells.

12. (Cancelled)

13. (Currently Amended) The system of Claim 12 Claim 11 wherein the historic
usage information comprises information associated with the cells in the system most
frequently occupied by the user.

14. (Currently Amended) The system of Claim 12 Claim 11 wherein the historic
usage information associated with the number of cells affected by calls made by each of the
plurality of users.

15. (Original) The system of Claim 11 wherein the resource manager is operable
to store and use a table of data comprising historic bandwidth usages information for a
plurality of cells in the system.

16. (Original) The system of Claim 15 wherein the usage information comprises usage information associated with usage levels at different times of day.

17. (Original) The system of Claim 15 wherein the usage information comprises usage information associated with usage levels at different day of the week.